10/593289 PURIFICATION OF CH2Cl2

```
=> d his

     (FILE 'HOME' ENTERED AT 19:19:06 ON 13 NOV 2007)

     FILE 'REGISTRY' ENTERED AT 19:19:29 ON 13 NOV 2007
L1             STRUCTURE UPLOADED
L2            50 S L1 SSS FULL
L3             0 S L2 AND PURIFICATION

     FILE 'HCAPLUS' ENTERED AT 19:20:40 ON 13 NOV 2007
L4           240 S L2 AND PURIFICATION
L5             0 S L4/PREP
L6            14 S L2 AND MOLECULAR (A) SIEVE

=> S L1 AND PURIFICATION
   REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.



SAMPLE SEARCH INITIATED 19:27:13 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     6366 TO ITERATE

 31.4% PROCESSED     2000 ITERATIONS                                 3 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       122537 TO   132103
PROJECTED ANSWERS:               5 TO      375

L7             3 SEA SSS SAM L1



L8             3 L7


         345374 PURIFICATION
           1117 PURIFICATIONS
         346147 PURIFICATION
                  (PURIFICATION OR PURIFICATIONS)
         313672 PURIFN
            238 PURIFNS
         313776 PURIFN
                  (PURIFN OR PURIFNS)
         508299 PURIFICATION
                  (PURIFICATION OR PURIFN)
L9             0 L8 AND PURIFICATION

=> LOG Y
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
```

10/593289 PURIFICATION OF CH2Cl2

FULL ESTIMATED COST	2.60	248.98
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-10.92

STN INTERNATIONAL LOGOFF AT 19:27:46 ON 13 NOV 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAMLL1621

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JUL 02	LMEDLINE coverage updated
NEWS 3	JUL 02	SCISEARCH enhanced with complete author names
NEWS 4	JUL 02	CHEMCATS accession numbers revised
NEWS 5	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 6	JUL 16	CAplus enhanced with French and German abstracts
NEWS 7	JUL 18	CA/CAplus patent coverage enhanced
NEWS 8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9	JUL 30	USGENE now available on STN
NEWS 10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 11	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 12	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 13	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 14	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 15	AUG 27	USPATOLD now available on STN
NEWS 16	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 17	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 18	SEP 13	FORIS renamed to SOFIS
NEWS 19	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 20	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 21	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 22	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 23	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 24	OCT 19	BEILSTEIN updated with new compounds

NEWS EXPRESS	19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 19:19:06 ON 13 NOV 2007

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 19:19:29 ON 13 NOV 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 12 NOV 2007 HIGHEST RN 953132-99-5
DICTIONARY FILE UPDATES: 12 NOV 2007 HIGHEST RN 953132-99-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

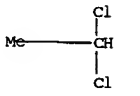
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\2007cases\10593289\structuretext search PNG.str

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



```
Structure attributes must be viewed using STN Express query preparation.


=> s l1 sss full
FULL SEARCH INITIATED 19:20:07 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    127335 TO ITERATE

100.0% PROCESSED   127335 ITERATIONS                              50 ANSWERS
SEARCH TIME: 00.00.01

L2            50 SEA SSS FUL L1

=> s l2 and purification
            18 PURIFICATION
L3           0 L2 AND PURIFICATION

=> s l1 and purification
COMBINATION OF STRUCTURE AND TEXT TERMS NOT VALID
The query entered contains both search terms created by
structure-building or screen commands and text search terms.  L#s
created via the STRUCTURE or SCREEN commands must be searched in the
structures files separately from text terms or profiles.  The L#
answer sets from structure searches can be used in crossover searches
and can be combined with text terms.

=> file hcaplu
COST IN U.S. DOLLARS                        SINCE FILE       TOTAL
                                               ENTRY     SESSION
FULL ESTIMATED COST                           177.50     177.71

FILE 'HCAPLUS' ENTERED AT 19:20:40 ON 13 NOV 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 13 Nov 2007  VOL 147 ISS 21
FILE LAST UPDATED: 12 Nov 2007  (20071112/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s l2 and purification
         3071 L2
       345374 PURIFICATION
         1117 PURIFICATIONS
```



```
       346147 PURIFICATION
                (PURIFICATION OR PURIFICATIONS)
       313672 PURIFN
          238 PURIFNS
       313776 PURIFN
                (PURIFN OR PURIFNS)
       508299 PURIFICATION
                (PURIFICATION OR PURIFN)
L4        240 L2 AND PURIFICATION

=> s l4/prep
         3071 L2
         9798 PURIFICATION/CT
      4488865 PREP/RL
            1 PURIFICATION/PREP
                (PURIFICATION/CT (L) PREP/RL)
L5          0 (L2 AND PURIFICATION/PREP)

=> dhis
DHIS IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> d his

     (FILE 'HOME' ENTERED AT 19:19:06 ON 13 NOV 2007)

     FILE 'REGISTRY' ENTERED AT 19:19:29 ON 13 NOV 2007
L1              STRUCTURE UPLOADED
L2           50 S L1 SSS FULL
L3            0 S L2 AND PURIFICATION

     FILE 'HCAPLUS' ENTERED AT 19:20:40 ON 13 NOV 2007
L4          240 S L2 AND PURIFICATION
L5            0 S L4/PREP

=> s l2 and molecular (a) sieve
         3071 L2
      1243751 MOLECULAR
           81 MOLECULARS
      1243814 MOLECULAR
                (MOLECULAR OR MOLECULARS)
      2553412 MOL
       688218 MOLS
      2926339 MOL
                (MOL OR MOLS)
      3430633 MOLECULAR
                (MOLECULAR OR MOL)
        38666 SIEVE
        22036 SIEVES
        49607 SIEVE
                (SIEVE OR SIEVES)
        29398 MOLECULAR (A) SIEVE
L6          14 L2 AND MOLECULAR (A) SIEVE

=> d 1-14 ibib abs
```

L6 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1171057 HCAPLUS
DOCUMENT NUMBER: 143:442425
TITLE: Method for the adsorptive removal of stabilizers from 1,1-dichloroethane and a fluorination process for production of 1,1-difluoroethane from it
INVENTOR(S): Ohno, Hiromoto
PATENT ASSIGNEE(S): Showa Denko K.K., Japan
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005102970	A1	20051103	WO 2005-JP7492	20050413
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2005336164	A	20051208	JP 2005-113555	20050411
CN 1946658	A	20070411	CN 2005-80013078	20050413
US 2007197843	A1	20070823	US 2006-593289	20060918
KR 2007002022	A	20070104	KR 2006-719583	20060922

PRIORITY APPLN. INFO.:

JP 2004-129917	A	20040426
US 2004-567811P	P	20040505
WO 2005-JP7492	W	20050413

AB 1,1-Dichloroethane containing a compound having a nitro group and/or a hydroxyl group as a stabilizer is brought into contact with a zeolite having an average pore size of 3.4-11 Å and/or a carbonaceous adsorbent having an average pore size of 3.4-11 Å in a liquid phase and the stabilizer contained in 1,1-dichloroethane is efficiently removed by a simple and convenient method and 1,1-difluoroethane can be economically produced.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:735266 HCAPLUS
DOCUMENT NUMBER: 138:94314
TITLE: Ambient level volatile organic compound (VOC) monitoring using solid adsorbents - Recent US EPA studies
AUTHOR(S): McClenny, William A.; Oliver, Karen D.; Jacumin, Henry H., Jr.; Daughtrey, E. Hunter, Jr.
CORPORATE SOURCE: National Exposure Research Laboratory, Environmental Protection Agency, Research Triangle Park, NC, 27711, USA
SOURCE: Journal of Environmental Monitoring (2002), 4(5), 695-705

CODEN: JEMOFW; ISSN: 1464-0325
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Ambient air spiked with 1-10 ppbv concns. of 41 toxic volatile organic compds. (VOC) listed in USEPA Compendium Method TO-14A was monitored using solid sorbents for sample collection and a Varian Saturn 2000 ion trap mass spectrometer for anal. The adsorbent was a combination of graphitic C and a Carboxen-type C mol. sieve. Method detection limits (MDL) for 1-L samples were typically ≤0.5 ppb by volume (ppbv), except for bromomethane and chloromethane which exhibited breakthrough. Thirty-day sample storage on sorbents resulted in a <20% change for most compds.; water management was required for humid samples to avoid major anomalous decreases in response during analyses. The adsorbent-based system, a system using canister-based monitoring, and a semi-continuous automated gas chromatog.-mass spectrometry (autoGC) monitoring system with a Tenax GR/Carbotrap B/Carbosieve S-III adsorbent pre-concentrator were compared using spiked O3 concns. as a variable. In this comparison, target compds. included several n-aldehydes and those listed in TO-14A. The effect of O3 on the TO-14A compds. was relatively minor except for neg. artifacts for styrene and 1,1,2,2-tetrachloroethane; however, a small, systematic decrease in response was evident for several aromatic VOC and 1,1,2,2-tetrachloroethanewhen O3 was increased from 50 to 300 ppbv. Method avs. for multiple runs under the same conditions were typically within ±0.25 ppbv of their mean for most compds. For n-aldehydes, strong pos. artifacts using the autoGC pre-concentrator and strong neg. artifacts for the canister-based and C sorbent approaches caused major disagreement among methods. These artifacts were mostly eliminated using MnO2 O3 scrubbers, although n-aldehyde loss for all methods occurred after a single sample collection of 1 h duration, apparently due to the interaction of n-aldehydes and products of the O3/MnO2 reaction on the scrubber.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:587247 HCAPLUS
DOCUMENT NUMBER: 129:320735
TITLE: Study on the determination of volatile organic compounds by solid adsorbent adsorption and gas chromatography mass spectrometry
AUTHOR(S): Izumikawa, Sekio; Hoshi, Junya
CORPORATE SOURCE: The Tokyo Metropolitan Res. Inst. for Environ. Protection, Japan
SOURCE: Zenkoku Kogaiken Kaishi (1998), 23(2), 66-75
CODEN: ZKKADQ; ISSN: 0385-1028
PUBLISHER: Zenkoku Kogaiken Kaishi Jimukyoku
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The determination of volatile organic compds. in air by solid adsorbent adsorption-solvent extraction-gas chromatog. mass spectrometry showed that when C mol. sieve collection tubes were used the recovery of halogen compds. and hydrocarbons were >70%, but for some esters recovery was near zero.

L6 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:144575 HCAPLUS
DOCUMENT NUMBER: 128:265538

TITLE: On-site sampling for volatiles and pesticides using solid-phase microextraction
AUTHOR(S): Shirey, Robert; Mani, Venkatachalam; Mindrup, Raymond
CORPORATE SOURCE: SPME, Bellefonte, PA, 16823-0048, USA
SOURCE: American Environmental Laboratory (1998), 10(2), 21-22
CODEN: AELAEL; ISSN: 1051-2306
PUBLISHER: International Scientific Communications, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A portable field sampling apparatus that uses solid-phase microextn. (SPME) provides a simple, reliable alternative for environmental sample collection and shipment. The Carboxen/polydimethylsiloxane(PDMS) fiber retains volatile organic compds. effectively. Losses of chlorinated pesticides or organophosphorus pesticides were minimal after 3 days of storage on 100-μm PDMS-coated SPME fiber at 4°.

L6 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:766147 HCAPLUS
DOCUMENT NUMBER: 128:52264
TITLE: Evaluation of thermal desorption sampling tubes for EPA Method TO-17
AUTHOR(S): Howe, Gary B.; Jayanty, R. K. M.; DeGraff, Irene D.; Betz, William R.; Tipler, Andrew; Woolfenden, Elizabeth
CORPORATE SOURCE: Research Triangle Inst., Research Triangle Park, NC, 27709, USA
SOURCE: Measurement of Toxic and Related Air Pollutants, Proceedings of a Specialty Conference, Research Triangle Park, N. C., Apr. 29-May 1, 1997 (1997), Volume 1, 269-280. Air & Waste Management Association: Pittsburgh, Pa.
CODEN: 65JQAY
DOCUMENT TYPE: Conference
LANGUAGE: English

AB The US EPA Compendium Method TO-14, which involves collection of whole air samples in passivated canisters followed by gas chromatog. anal., continues to be a widely used approach for monitoring volatile organic compds. (VOCs) in ambient air. An alternative to TO-14 has recently been promulgated by the US EPA (Compendium Method TO-17). This new method involves pumping ambient air through a sorbent tube to collect VOCs and anal. by thermal desorption and capillary gas chromatog. RTI has evaluated two different multiadsorbent tubes for use in Method TO-17. Both tube types were tested by sampling a 39-component mixture of TO-14 compds. In addition, one of the tube types was tested with an 18-component mixture of polar organic compds. The nominal concentration of each compound was 10 ppb in nitrogen. The relative recovery and sorbent tube breakthrough were evaluated for each compound at 3 different sample vols. and at different relative humidities. Sample anal. was performed by automated thermal desorption with capillary gas chromatog. and flame ionization detection.

L6 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:759572 HCAPLUS
DOCUMENT NUMBER: 128:15864
TITLE: VOST charcoal specification study
AUTHOR(S): Fuerst, Robert G.; Foster, A. L.; Bursey, J. T.
CORPORATE SOURCE: U. S. Environmental Protection Agency Research Triangle Park, NC, 27711, USA

SOURCE: Measurement of Toxic and Related Air Pollutants, Proceedings of an International Specialty Conference, Research Triangle Park, N. C., May 7-9, 1996 (1996), 280-284. Air & Waste Management Association: Pittsburgh, Pa.
CODEN: 65IHA2
DOCUMENT TYPE: Conference
LANGUAGE: English

AB The volatile organic sampling train (VOST) methodol. incorporates SW-846 sampling Method 0030 and SW-846 anal. Method 5040 or 5041. VOST is currently one the leading methodols. available for the sampling and anal. of volatile principal organic hazardous constituents (POHCs) and products of incomplete combustion (PICs) from stationary sources at very low levels. However, revisions to the original method are necessary to maintain VOST as a viable regulatory tool. Method 0030 states that the VOST sampling tube set must consist of a front tube containing Tenax and a rear tube containing sequential bed of Tenax and SKC Lot 104 petroleum-based charcoal "or equivalent". However, the method does not identify a specific equivalent, nor does the method supply the performance specifications which would allow determination of an equivalent Lot 104 petroleum-based charcoal is no longer com. available and has not been available for several years. Labs. are presently using a wide range of substitutes, usually coconut-based charcoal, and there is a wide range of performance from batch to batch of charcoal in one laboratory and from laboratory to laboratory To provide performance specifications and identify a replacement for SKC Lot 104 charcoal, a VOST charcoal specification study was initiated. The following carbon-based candidate sorbents were considered: Tenax-GR (a graphitized Tenax); a Petroleum-based Charcoal; Ambersorb XE-340 (hydrophobic carbonized resin bead); Anasorb 747 (beaded active carbon with very regular pore size); Carbosieve S-III (carbon mol. sieve); and a Beaded Activated Charcoal (BAC) (with a very regular pore size). The results indicated that Tenax-GR showed significantly poorer performance than the other candidates in preliminary exptl. results. Ambersorb did not retain the gaseous volatile organic compds. tested as well as the others and recovery of vinyl chloride was very low at all levels of spiking. Carbosieve was eliminated as a candidate replacement because of cost and handling problems. The petroleum-based charcoal was eliminated because of difficulties in handling a finely-divided powder. The availability of Anasorb 747 proved to be the deciding factor between it and the BAC. Performance, cost, ease of handling, and plentiful supply make Anasorb 747 a good choice for replacement of SKC Lot 104.

L6 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:376693 HCAPLUS
DOCUMENT NUMBER: 127:103678
TITLE: Silicalite as a sorbent for solid-phase extraction
AUTHOR(S): Mayer, Dianna L.; Fritz, James S.
CORPORATE SOURCE: Department of Chemistry, Iowa State University and Ames Laboratory, US Dept. of Energy, Ames, IA, 50011, USA
SOURCE: Journal of Chromatography, A (1997), 771(1 + 2), 45-53
CODEN: JCRAEY; ISSN: 0021-9673
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A mol. sieve known as Silicalite was used as a sorbent for solid-phase extraction (SPE) of organic analytes from aqueous samples. Silicalite contains an intricate system of channels approx. 6 Å in diameter, but unlike most other mol. sieves the channels of silicalite are able to retain organic compds. by hydrophobic attraction. Small hydrophilic compds., such as the lower alcs., aldehydes, esters and ketones, are well extracted by silicalite, thus adding a valuable new capability to conventional SPE. Extensive data are presented to define the scope and limitations of silicalite for SPE. Breakthrough curves were used for several compds. to determine their loading capacity on silicalite.
REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:467328 HCAPLUS
DOCUMENT NUMBER: 125:131304
TITLE: Methods for analysis of volatile organic compounds in water and air
INVENTOR(S): Lansbarkis, James R.; Gingrich, Jon S.; Lindberg, Catherine L.
PATENT ASSIGNEE(S): UOP Inc., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5536301	A	19960716	US 1995-411097	19950327

PRIORITY APPLN. INFO.: US 1995-411097 19950327
AB The purge and trap procedure commonly used for anal. of volatile organic compds. in water or air can be significantly improved using traps employing mol. sieves as adsorbents. Silicalite and potassium-exchanged dealuminated zeolite Y form an effective mixture

L6 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:730053 HCAPLUS
DOCUMENT NUMBER: 123:122063
TITLE: Removal of chlorinated hydrocarbons from aqueous effluent streams using hydrophobic zeolite molecular sieves
AUTHOR(S): Hampson, J. A.; Gladen, L. F.
CORPORATE SOURCE: Dep. Chem. Eng., Univ. Cambridge, Cambridge, CB2 3RA, UK
SOURCE: IChemE Res. Event--Eur. Conf. Young Res. Chem. Eng., 1st (1995), Volume 1, 369-71. Inst. Chem. Eng.: Rugby, UK.
CODEN: 61OUA9
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Aqueous phase adsorption isotherms of five common Volatile Organic Compds. (VOCs) on three ZSM-5 zeolite samples of varying Si/Al ratios are presented. The adsorption isotherms were measured at 303 K and bulk aqueous concentration of up to

300 ppm. The isotherms were measured using the bottle point method. Thermogravimetric Anal. was used to measure the equilibrium water content of the zeolite samples at a constant relative humidity. The water content gives a measure of the hydrophobicity of the zeolite samples which has been compared against the uptake behavior of the various VOCs.

L6 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:403735 HCAPLUS
DOCUMENT NUMBER: 117:3735
TITLE: Ion-trap detection of volatile organic compounds in alveolar breath
AUTHOR(S): Phillips, Michael; Greenberg, Joel
CORPORATE SOURCE: Dep. Med., St. Vincent's Med. Cent. Richmond, Staten Island, NY, 10310, USA
SOURCE: Clinical Chemistry (Washington, DC, United States) (1992), 38(1), 60-5
CODEN: CLCHAU; ISSN: 0009-9147
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Method is described for the collection and microanal. of the volatile organic compds. in human breath. A transportable apparatus supplied with purified air and samples their alveolar breath; the volatile organic compds. are captured in an adsorptive trap containing activated carbon and mol. sieve. The sample is thermally desorbed from the trap in an automated microprocessor-controlled device, concentrated by two-stage cryofocusing, and assayed by gas chromatog. with ion-trap detection. Compds. are identified by reference to a computer-based library of mass spectra with subtraction of the background component present in the inspired air. This device was used to study 10 normal subjects and to determine the relative abundance of the volatile organic compds. in their alveolar breath. The breath-collecting apparatus was convenient to operate and was well tolerated by human volunteers.

L6 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:168145 HCAPLUS
DOCUMENT NUMBER: 106:168145
TITLE: Adsorption chromatography on PLOT (porous-layer open-tubular) columns: a new look at the future of capillary GC
AUTHOR(S): De Zeeuw, J.; De Nijs, R. C. M.; Henrich, L. T.
CORPORATE SOURCE: Chrompack Int., Middelburg, 4330 EA, Neth.
SOURCE: Journal of Chromatographic Science (1987), 25(2), 71-83
CODEN: JCHSBZ; ISSN: 0021-9665
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The applicability of highly efficient PLOT columns is described. Capillary columns coated with Al_2O_3, SiO_2, and the mol. sieve types 5 Å and 13X are evaluated, and a number of applications are given. Because of their unique retention characteristics, these adsorption materials are suited for very specific and difficult sepns. Al_2O_3 and SiO_2 are used for the determination of low concns. of C1-C10 hydrocarbons; mol. sieve type 5 Å has a unique retention for permanent gases; and mol. sieve type 13X gives a very specific separation of naphthenes from paraffins, which simplifies the identification of naphthas. The characteristics and uses of these PLOT columns now and in the future are discussed.

L6 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:555079 HCAPLUS
DOCUMENT NUMBER: 105:155079
TITLE: Molecular sieves as catalysts for preparation of 1,1,2-trichloroethane
INVENTOR(S): Juhl, Roger L.; Johnson, Mark S.; Morris, Thomas E.
PATENT ASSIGNEE(S): Dow Chemical Co., USA
SOURCE: U.S., 2 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4605801	A	19860812	US 1982-437711	19821029
PRIORITY APPLN. INFO.:			US 1982-437711	19821029

OTHER SOURCE(S): CASREACT 105:155079
AB Y-type zeolites are catalysts for the chlorination of 1,1-dichloroethane (I) with Cl in a fluidized bed to yield 1,1,2-trichloroethane (II). Unreacted I is separated from II and recycled. The chlorination is carried out at 100-350° (preferably 110-200°), 0.1-30 s (preferably 1-3 s) residence time, and 1:1-10 molar ratio Cl-I. Reaction of 2.0:1 I-Cl (molar ratio) at 165° and 1.6 s residence time over <24-52 mol. sieve resulted in 100% Cl conversion per pass, 45% I conversion per pass, and 60.83% selectivity to II. The major byproduct (28.34% selectivity) is vinyl chloride.

L6 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:421679 HCAPLUS
DOCUMENT NUMBER: 71:21679
ORIGINAL REFERENCE NO.: 71:3977a,3980a
TITLE: Vinyl halide production by dehydrohalogenation of dihalogenated hydrocarbons
PATENT ASSIGNEE(S): Pullman Inc.
SOURCE: Brit., 10 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1152021		19690514	GB 1966-25191	19660606
PRIORITY APPLN. INFO.:			US	19650830

AB The title process is carried out by mixing the dihalohydrocarbon component with an inert diluent having a larger mol. dimension than the pore opening of the catalyst used and than the reactant, and dehydrohalogenating the dihalohydrocarbon at ≥60° in the presence of an aluminosilicate catalyst having a pore size >6 A. and formed by a 12-membered ring. Thus, 12 g. Na faujasite with pore size .apprx.13 A. was calcined 12 hrs. in N at 350°, cooled to 315°, and held at this temperature while a preheated gaseous mixture of N and 1,2-dichloroethane (I) was passed over the catalyst at a space velocity of 9.6 g./hr./g.

catalyst. The space velocity of the N was 2.9 ml./min./ml. catalyst at the reaction temperature When temperature equilibrium was obtained, the reaction was run for 3 hrs. at 315° with I contact time of .apprx.1.2 sec. The condensate from this reaction contained I 289, vinyl chloride (II) 30.9, and HCl 16 g. Conversion was 14% and II selectivity 98%. Conversion was increased without affecting selectivity by recycling unreacted I. The presence of 1,1-dichloroethane or chloral did not affect the results. Ca faujasite and H mordenite were also used as catalysts. These catalysts have good chemical stability, selectivity for the desired product, activity, and life.

L6 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1968:402310 HCAPLUS
DOCUMENT NUMBER: 69:2310
ORIGINAL REFERENCE NO.: 69:431a,434a
TITLE: Elimination reaction of hydrogen chloride from 1,1,2-trichloroethane on ion exchange molecular sieves
AUTHOR(S): Mochida, Isao; Yoneda, Yukio
CORPORATE SOURCE: Univ. Tokyo, Tokyo, Japan
SOURCE: Journal of Organic Chemistry (1968), 33(5), 2161-3
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
AB MeCHCl2, ClCH2CH2Cl, MeCCl3, Cl2CHCH2Cl (I) and Cl2CHCHCl2 are dehydrochlorinated in the presence of mol. sieves containing the following cations: H, Mg++, Li+, Ca++, Na+, and K+. I gives a mixture of CH2:CCl2 (II), and trans-ClCH:CHCl (trans-III), and cis-ClCH:CHCl (cis-III). In the elimination of HCl from I on the mol. sieves, the trans-/cis-III ratio increases as the II-III ratio is increased.

=> d his

(FILE 'HOME' ENTERED AT 19:19:06 ON 13 NOV 2007)

FILE 'REGISTRY' ENTERED AT 19:19:29 ON 13 NOV 2007
L1 STRUCTURE UPLOADED
L2 50 S L1 SSS FULL
L3 0 S L2 AND PURIFICATION

FILE 'HCAPLUS' ENTERED AT 19:20:40 ON 13 NOV 2007
L4 240 S L2 AND PURIFICATION
L5 0 S L4/PREP
L6 14 S L2 AND MOLECULAR (A) SIEVE